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**AUDIT AND MANAGEMENT CONSULTING DIVISION
OFFICE OF INTERNAL OVERSIGHT SERVICES**

Reference: AUD-7-1:10 (1595/00)

14 November 2000

To: Mr. Nitin Desai, Under-Secretary-General
for Economic and Social Affairs

From:  Esther Stern, Director
Audit and Management Consulting Division, OIOS 

Subject: OIOS Audit of DESA Project IRQ 97003 (AH99/4/3)

1. I am pleased to present herewith our final report on the audit of the above subject which was conducted at Headquarters from August 1999 to January 2000 with field work carried out in Iraq during October 1999.

2. In response to the draft report of 6 March 2000, DESA in their reply, dated 22 September 2000, has agreed to implement recommendations 001 and recommendations 004 to 006. Based on the response, we are pleased to inform you that we have closed recommendations 001, 004 and 006 in the AMCD recommendation database. Recommendations 002 and 003 were not accepted. On the basis of your explanation, we have decided to withdraw these recommendations. In order for us to close out Recommendation No. 005, we request that you provide a time schedule for implementing the recommendation. Please refer to the recommendation number concerned to facilitate monitoring implementation status.

3. I take this opportunity to thank the management and staff of OIP and UNOHCI for the assistance and cooperation provided to the auditors in connection with this assignment.

Copy to:
Mr. J. Connor
Mr. B. Sevan
Mr. J.P. Halbwachs
UN Board of Auditors
Planning and compliance Officer, OIOS
Acting Chief, AMCD Iraq Programme Section

United Nations
OFFICE OF INTERNAL OVERSIGHT SERVICES
Audit and Management Consulting Division

AUDIT REPORT

Audit of DESA Project IRQ 97003
Audit No. AH99/4/3

Report date: 14 November 2000

Audit team:
Auditor-in-Charge:
Rudy Yu-Asensi

Assisting Auditors:
Satish Ratnam
Lionelito Berridge

AUDIT OF DESA Project IRQ 97003

AH99/4/3

Executive Summary

From August to December 1999, OIOS audited project IRQ 97003 for the Rehabilitation of the Electricity Network in North Iraq executed by the United Nations Department of Economic and Social Affairs (DESA). Our review included on site visits to the Governorates of Erbil and Suleimaniyah and covered the activities executed by DESA since the project's inception. The project had a total budget of \$104.5 million, which was later revised to \$78 million on 25 January 2000.

The audit found that there were significant delays in the delivery of project outputs. No substantial goods were supplied until Phase III (early 1998), although the Office for the Iraq Programme (OIP) funding for the first two phases amounted to \$42.5 million. As of 31 December 1999, only \$37.2 million worth of equipment, spare parts and services had been delivered by DESA, out of an overall budget of \$104.5 million. The difficulties in installing the equipment delivered on site and other technical problems further diminished project performance.

Several factors internal and external to DESA significantly contributed to the problems. As a result of inadequate project planning and formulation, an adequate equipment needs assessment and review of specifications were not performed before initiating the procurement exercise. The slowness and ineffectiveness of the procurement process together with the imprecision of the equipment specifications caused significant delay in output delivery. Yet, it seems to us that the main weaknesses in the North Iraq electricity project management by DESA were as follows. First, DESA did not perform a risk assessment before engaging in the execution of the project. Then, in spite of knowing the project's structural deficiencies, DESA management failed to redesign the project to include technical and managerial considerations previously overlooked.

We believe that DESA should have, as early as the first evaluation mission was completed in 1997, concluded that the project was not feasible under the existing terms and conditions, negotiated modifications or withdrawn its participation in the project in order to safeguard the Secretariat's credibility.

Procurement

The most apparent cause of the low performance of project execution by DESA was the difficulty in procuring equipment on the basis of insufficient specifications and the ineffectiveness and inefficiency of the procurement process itself. To address these issues, we recommend that DESA management, in collaboration with the management of the Procurement Division, develop corrective mechanisms to ensure that the shortcomings in the North Iraq Electricity Project procurement exercise do not reoccur in other DESA-executed projects.

Project management

In our opinion, the factors that most significantly impeded adequate project development were the lack of comprehensive and realistic project goals and approaches, the improper organizational arrangements and the lack of cooperation and coordination between DESA and UNDP.

- The criticism by UNDP that DESA adopted an "erroneous project approach" by focusing on procurement activities appeared founded considering that there was no evidence that DESA management had tried to pursue a more appropriate approach by initiating a re-formulation of the project with UNDP. In our opinion, there are lessons to be learned by DESA as to whether and under what conditions it should accept project execution contracts.
- More importantly for ongoing and future project activities, we found that 13 months after UNDP elected to implement the project itself under the Direct Execution modality (DEX), there were no formal arrangements between DESA and UNDP on how project components remaining to be executed by DESA would be coordinated with UNDP/DEX. This situation especially applied to four projects budgeted at \$28 million in total: (a) the repair of draft tubes at the Derbandikhan station, (b) the generation feasibility study, (c) the rehabilitation of the Dokan hydropower station and (d) the Azmar and North Erbil substations' turnkey projects.

In conclusion, we recommend that DESA management learn from its mistakes in the Rehabilitation of the Electricity Network in North Iraq project and make the necessary adjustments to improve its project planning and monitoring procedures. For ongoing and future project activities under DESA's responsibility, we recommend that DESA management communicate to UNDP the consequences of the lack of coordination on output delivery and suspend further involvement until clarification and formalization of implementation arrangements.

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I. INTRODUCTION

1. OIOS conducted an audit of DESA Project IRQ 97003 for the Rehabilitation of the Electricity Network in North Iraq from August to December 1999, with on-site visits in October 1999 to both Erbil and Suleimaniyah in North Iraq. The audit was conducted in accordance with the general and specific standards for the professional practice of internal auditing in the United Nations. Certain findings and recommendations contained in this report were discussed with managers of the programme at Headquarters and in North Iraq. Their comments have been included as appropriate in this report and are marked in italics.

2. UN Security Council Resolution 986 provided for the rehabilitation of the electricity network in North Iraq through the Inter Agency Humanitarian Co-ordination Programme, with project implementation by the UN Development Programme (UNDP). From project inception to November 1998, the UN Department of Development Support and Management Services (DDSMS) - subsequently reorganised as the Department of Economic and Social Affairs (DESA) - acted as executing agency in the field for UNDP. In November 1998, UNDP elected to implement the project itself under the DEX (direct execution) modality, but DESA remained involved in certain project activities that it had initiated.

3. The short-term objectives of the project were to rehabilitate the electricity network in the three governorates of the northern region of Iraq in order to meet the immediate and pressing electricity service needs of the population at large, and particularly the most vulnerable groups on an emergency basis. To that end, the planned activities of the project were, among other things, to study and assess the needs for equipment and services, to procure and ensure appropriate installation of the equipment and to evaluate the project impact. It was also envisioned that the project would act as a catalyst towards the long-term objective of rehabilitating the electricity network and thereby improving the living conditions of the population in North Iraq.

4. The project is funded from the OIP escrow account (13 per cent of oil revenues) established for humanitarian supplies for North Iraq, with administrative costs paid from the 2.2 per cent of oil revenues allocated to cover administrative and operational costs. The overall project budget for the period December 1996 to June 2000 was established at \$517 million. As of 31 December 1999, DESA was responsible for executing about one fifth of that budget. The last budget revision of 25 January 2000 transferred \$26.5 million from DESA to UNDP/DEX, reducing the overall DESA-executed budget to \$78 million, as shown in the Table 1 below:

Table 1: Project budgeted expenditures (in million dollars)

<u>Phase</u>	<u>Period</u>	<u>DESA</u>	<u>DEX</u>	<u>Total</u>
I	Dec 96 – Jun 97	23.2	-	23.2
II	Jun 97 – Dec 97	19.3	-	19.3
III	Dec 97 – May 98	26.0	-	26.0
IV	May 98 – Nov 98	36.0	37.7	73.7
V	Nov 98 – May 99	-	91.7	91.7
VI	May 99 – Dec 99	-	172.0	172.0
VII	Dec 99 – Jun 00	-	111.0	111.0
Total as of 31/12/99		104.5	412.4	516.9
Budget revision of 25/01/00		(26.5)	26.5	0
Total as of 25/01/00		78.0	438.9	516.9

II. AUDIT OBJECTIVES

5. The objectives of the audit were to:

- (a) Determine whether projected activities were performed on time and within the resources allocated for their execution;
- (b) Verify the economical use of resources and the accuracy of outputs reported by DESA; and
- (c) Assess the adequacy of DESA management controls over the project execution, such as planning and coordination, activity monitoring and performance evaluation.

III. AUDIT SCOPE

6. In line with the above objectives, the audit covered the 1996-1999 project activities and outputs under the responsibility of DESA. We focused on an analysis of delays and shortcomings in output delivery in order to determine their causes and draw lessons to be learned therefrom.

IV. AUDIT FINDINGS AND RECOMMENDATIONS

A. Project performance

7. The document IRQ-96-1/N36 establishing the project covered the period from December 1996 to June 1997 (project Phase I). It was never updated to take into account the prolongation of the project and budget revisions. However, the objectives broadly indicated in the project document were translated into distribution plans consisting of lists of equipment and services to be delivered during each phase. DESA had executed all three initial phases of the project and part of the fourth phase, each of which corresponded to a specific distribution plan. We assessed DESA's performance by measuring the outputs completed against the original project objectives

and completed our evaluation by analysing the expenditures and outputs (actual deliverables and orders placed) against the budget of each phase. We concluded that neither the general project objectives nor the distribution plan target dates were met after three years of project execution.

1. Project objectives only partially met after three years

8. As of December 1999, the outputs identified in the project document for completion by August 1997 were still on going. Table 2 below describes the project objectives and their respective status of achievement:

Table 2: Status of achievement of project objectives for completion by August 1997

1. Raise capacity from 240MW to 400MW at Dokan and Activate one turbine at Derbandikhan.	<p>Work to rehabilitate Dokan started in January 2000 under contract with Technopromexport.</p> <p>Repair work on one turbine completed in January 2000 by HECEC.</p>
2. Rehabilitate distribution and transmission lines in Suleimaniya.	<p>DESA purchased various equipment and parts in 1997 and 1998. A transmission and distribution study was submitted in July 1998 by SMEC. DESA expects to sign in January 2000 a contract for the \$9 million Azmar substation construction.</p> <p><i>To achieve the project objective, UNDP/DEX is implementing the \$7 million substations construction (Project No. IRQ99Z56) to house the power transformers bought by DESA in August 1997 with completion date of 31 December 2000. For the three governorates, UNDP/DEX is also implementing the \$45 million distribution network (IRQ99Z61) with a planned completion date of 13 October 2000 and the \$28 million transmission lines (IRQ99Z55) with a planned completion date of 31 December 2001.</i></p>
3. Rehabilitate substations, transformers and transmission lines in Erbil.	<p>DESA purchased various equipment and parts in 1997 and 1998 and completed the construction of the Ifraz \$0.9 million, 33kV transmission line in January 1999. DESA expects to sign in January 2000 the contract for the \$12 million North Erbil substation's construction.</p> <p><i>To achieve the project objective, UNDP/DEX is implementing the \$22 million substations' construction (IRQ99Z62) with a planned completion date of 13 October 2002.</i></p>

4. Rehabilitate distribution network in Dohuk	<p>DESA purchased various equipment and parts in 1997 and 1998.</p> <p><i>To achieve the project objective, UNDP/DEX is implementing the \$2.1 million rehabilitation of the Dohuk substation (IRQ99Z52) with a planned completion date of 31 December 2000.</i></p>
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9. Project activities were expected to continue until the end of the year 2002. This showed that the original projection of six months for project duration was significantly underestimated and for that reason, it was difficult to assess DESA's performance on the sole basis of the project document. DESA officials told us that the engineering nature of the project and the complexity of the environment in North Iraq explain the slow implementation pace in the first phases of the project. Evaluation mission reports have also argued that the setting up of offices, recruitment of field staff, and development of communication channels between the Governorates and Headquarters consumed time and resources that had not been considered in the project formulation.

2. Distribution plans' target dates were not met

10. In order to meet the rehabilitation objectives, DESA had to procure equipment and services, and oversee the installation of the equipment on site. As of December 1999, against the original budget of \$104.5 million, DESA had effectively delivered \$37.2 million of equipment, spare parts and installation services and placed further orders of \$14 million. Table 3 below shows the project budget and expenditures for the four phases under DESA execution:

Table 3: DESA-executed project budget and expenditures by phase

(Figures in \$ million)

Phase	Budget	Delivered during phase	Deliveries as of 31/12/99	Outstanding Orders as of 31/12/99	Balance as of 31/12/99
I (Dec 96-Jun 97)	23.2	-	22.0	1.2	-
II (Jun 97-Dec 97)	19.3	-	5.4	5.5	8.4
III (Dec 97-May 98)	26.0	-	6.5	1.6	17.9
IV (May 98-Nov 98)	36.0	-	3.3	5.7	27.0
Total	104.5		37.2	14.0	53.3

Note 1: Figures include programme support earned (3 per cent of the budget)

Note 2: As of January 2000, the balance was \$26.8 against the revised budget of \$78 million.

Phase I (Dec 1996 to June 1997)

11. The original project document that was signed by UNDP on 24 March 1997 stipulated the initial six-month project duration and included an estimate that by August 1997, all outputs

would have been delivered. During the period corresponding to the first phase of the project, DESA did not deliver any equipment or supplies. The items started to arrive in October 1997. DESA had still not completed the delivery of outputs for Phase I by December 1999, since \$1.2 million of orders remained to be delivered.

Phase II (June 1997 to Dec 1997)

12. Phase II was to be implemented based on the original project document and the Distribution Plan II approved on 4 August 1997, the latter consisting of equipment and spare part lists for the three governorates, including the Azmar turnkey substation. The level of expenditures was established at \$19.3 million for the period from June 1997 to December 1997.

13. Phase II equipment and supplies did not start to arrive until February 1999. As of November 1999 --29 months after the termination date of the Phase II-- DESA had effectively delivered only 27 per cent of the budgeted expenditures and placed orders for another \$5.5 million for a total of 56 per cent of the amounts budgeted. DESA still had to execute \$8.4 million of budgeted expenditures, which included the estimated cost of the Azmar substation (equipment component) still awaiting approval by the UNDP Project Appraisal Committee and the signature of the contractor.

Phase III (Dec 1997 to May 1998)

14. Phase III, budgeted at \$26 million, was to be implemented based on the original project document and the Distribution Plan III approved on 5 January 1998, the latter consisting of equipment and spare part lists for the three governorates, including the North Erbil substation turnkey project.

15. The DESA expenditures for Phase III as of December 1999 represented only 31 per cent of the amounts budgeted. None of the equipment and supplies were delivered during the period indicated for Phase III. Deliveries started in February 1999 and were still continuing in December 1999, at which time they aggregated \$6.5 million. DESA had placed orders for another \$1.6 million which were not yet delivered. DESA still had to execute \$17.9 million of budgeted expenditures, including \$12.2 million for the North Erbil substation and \$1.5 million for the Azmar substation (services component) still awaiting approval by the UNDP Project Appraisal Committee and the signature of the contractor.

Phase IV (May 1998 to Nov 1998)

16. Phase IV (DESA portion) was also to be implemented based on the original project document. The budget was initially \$36 million for the Distribution Plan IV approved on 29 May 1998, consisting of turnkey items for electro-mechanical works at the Dokan and Derbandikhan hydro power stations.

17. As of December 1999, only 25 per cent of the budget for Phase IV was spent. By December 1999, DESA had delivered on site \$3.3 million worth of equipment (nine per cent of the budget) and placed purchase orders of \$5.7 million. In January 1999, DESA completed the

first Phase IV turnkey component: the urgent repair of the spillway gates of the Derbandikhan station. DESA had also finalized a \$4.5 million contract in June 1999 for the rehabilitation of the Dokan hydropower station, the work of which began in January 2000.

18. An analysis of project expenditures against the budget for each phase and the overall project budget showed that DESA never met any of the distribution plan target dates. The delays accumulated to result in the low overall implementation rate of 49 per cent (percentage of expenditures to the amounts budgeted).

B. Causes of low project performance

19. We found that there were several causes that accounted for the low performance under DESA project execution, the most apparent being the difficulty of procuring equipment on the basis of insufficient specifications, and the ineffectiveness and inefficiency of the procurement process. But in fact, the factors that most significantly impeded adequate project development were the lack of realistic and comprehensive project goals and plans, the improper organizational arrangements for project execution and the lack of cooperation and coordination with UNDP.

1. Insufficient equipment specifications

20. We attributed the delays in the procurement process and the resulting poor performance in meeting the objectives of the four phases executed by DESA, to the shortcomings and limited usefulness of equipment specifications included in the Distribution Plans prepared by the local authorities, and their insufficient review by DESA.

21. The UNDP country office in Baghdad informed DESA on 13 August 1996 that the Department of Humanitarian Affairs had selected UNDP and DESA to facilitate the implementation of the provision of essential spare parts for the electricity rehabilitation programme in North Iraq. Based on the first Distribution Plan, a budget of \$13.2 million was released; and on 1 October 1996, UNDP Baghdad transmitted to DESA a 35 page list containing 730 lines of equipment and spare part items requested by the local authorities, recommending that DESA initiate procurement activities. UNDP Baghdad informed them that the list formed part of the Memorandum of Understanding of 20 May 1996 between the Government of Iraq and the UN Secretariat. This document appeared to have set up the "procurement-driven" approach adopted by DESA at the start of the project.

22. DESA did not evaluate the relevance of the equipment list. The lack of a comprehensive study of the condition of the electricity network in North Iraq prevented consideration of whether adequate infrastructures existed, how the new equipment would fit in, whether local engineers were able to operate them and what logistics were necessary to support the rehabilitation process. This fundamental deficiency explains the difficulties and inefficiencies of the procurement exercise illustrated below.

- Inadequate specifications for generators delayed their procurement by 11 months and resulted in a contract price increase of 40 per cent. Four 2.2 MW diesel generators were purchased at a cost of \$3.9 million in December 1997 (Phase I funding) based on the

equipment list. In October 1998, two contract amendments totalling \$1.5 million were issued because the original specifications were inadequate: there were several variations, including those for civil works, spare parts, lubricating oil supplies and additional transportation costs.

- Power transformers purchased in August 1997 will not be used before August 2000. Eleven power transformers were purchased for \$2.6 million in August 1997 (Phase I funding) based on the equipment list, and delivered in October 1998. They could not be used because there were no substations to house them and no ancillary equipment to connect them to the power lines. Building the substations will cost \$7 million and according to UNDP/DEX officials, commissioning is not expected to take place before August 2000.

2. Ineffectiveness of the procurement process

23. The slowness and ineffectiveness of the UN Secretariat's procurement process added to delays in execution. The DESA Contract and Procurement Service (the functions of which were transferred to the Department of Management's Procurement Division (PD) on 8 February 1998) noted in July 1997 that: "The lack of precise specifications had led to countless requests for clarifications from suppliers both at the market survey and at the formal bidding stages of the procurement process. The bidding process itself was subjected to various amendments in the specifications of the requirements. In addition, many suppliers had declined to bid on the ground that the specifications were insufficient."

24. It was also the opinion of the DESA technical adviser that the equipment lists prepared by the Iraqi electricity authorities in April/May 1996 were deficient, as information was missing or insufficiently detailed. In addition, the items of equipment requested often consisted of replacements for obsolete equipment, no longer manufactured. Former suppliers of the obsolete equipment items were reluctant to provide price information and original specifications. Nonetheless, the final version of the equipment list, which showed little improvement compared to the original list, was submitted to DESA in June 1997 and constituted the basis for the procurement of equipment. DESA also complained about procurement bottlenecks, in particular with respect to the delay in the completion of feasibility studies for the New Power Generation in North Iraq and the rehabilitation of the hydropower generators at Dokan Dam.

25. It is also our view that PD was not in full control of the process as they had to rely on the specifications provided by DESA. These types of procurements are technically involved and required the use of procurement specialists with electrical engineering expertise and experts to prepare bid documents which enable suppliers to determine the exact requirements. As explained in paragraph 23 above, this was not the case and resulted in potential suppliers not bidding. It would therefore have been more appropriate to find an alternative method of procuring the required materials, such as outsourcing to qualified companies for the drafting of bidding documents, evaluation of bids and preparation of contracts.

Generation feasibility study

(Purchase order No. P-S-03385 of 22 July 1999)

26. A month after DESA transmitted its request for the generation feasibility study to PD, no procurement officer had been assigned to handle the request. In a memorandum addressed to PD

on 26 February 1999, DESA indicated that "On 29 January, request RSN 3886 for a \$150,000 contract for the feasibility study was cleared by the DESA Finance Office and forwarded to the Procurement Division. As of this date, we are not aware that a decision has been made as to the procurement officer who is to be responsible for handling the bidding for this contract." The audit noted that the purchase order was finally issued to the Snowy Mountains Engineering Corporation (SMEC) on 22 July 1999, six months after DESA transmitted its request to PD.

Contract for rehabilitation of the hydropower generators at Dokan Dam
(Contract No. PD/CON/304098 of 3 June 1999)

27. Although the rehabilitation of the five hydropower generation units at Dokan were crucial for the supply of electricity in the Erbil and Suleimaniya Governorates, the Procurement Division had not issued the contract until 3 June 1999--more than six months after the procurement action was cleared by the Headquarters Committee on Contracts. A letter dated 23 February 1999 from the Assistant Secretary-General, DESA, to the Assistant Secretary-General, Office of Central Support Services highlighted the difficulties encountered by DESA in this case: "The negotiations were completed on 17 December 1998 and cleared by the Headquarters Committee on Contracts (HCC) on 29 December. Although all additional information and adjustments were provided in early January, as of this date the contract has still not been issued by PD, nor have we received any indication that there is a deficiency in the information or materials provided for the execution of the contract. Technopromexport has expressed its readiness to implement the contract immediately and is puzzled by the silence of PD for almost two months." The audit noted that the contract was finally signed on 3 June 1999, more than six months after the HCC clearance.

Recommendation 1

OIOS recommends that DESA management, in collaboration with the Procurement Division, determine the causes for the shortcomings in the North Iraq electricity project procurement exercise and develop corrective mechanisms to ensure that the situation does not recur for other DESA-executed projects (AH99/4/3/1).

28. *In its reply to the draft report, DESA acknowledged that the causes for the shortcoming in the procurement process were clearly outlined in the audit report. It has also considered that further review of changes made by the local authorities with respect to lack of detailed specifications of required equipment is considered unnecessary at this stage. Furthermore, they stated that DESA and the Procurement Division have been working closely to ensure that similar situations do not arise in future project implementation.*

3. Inadequate project approach

29. We noted that DESA was severely criticized for the procurement driven approach adopted by the project. This was considered "an initial erroneous approach" as the UNDP Programme Director stated in January 1999 to justify the decision by UNDP to take over project execution from DESA. Although the DESA technical team identified and reported to UNDP the

causes of low project performance on a timely basis, there had been no official UNDP reply acknowledging DESA's findings and recommendations, especially regarding the inadequacy of the formulation of project approach and outputs. Yet, in our opinion, the UNDP criticism was well founded considering that DESA management did not initiate a reformulation of the project.

30. The basic points raised in the reports submitted by the DESA Power Consultant, Energy Management Branch, were as follows.

Mission report – October 1997

31. The mission found that the focus on the procurement of equipment for the Governorates in "packages" was not appropriate for the situation in Iraq. Prioritization (of the equipment) was based on "what could be achieved for the money available", with the result that, at the end of the project, the warehouses could be full of unusable equipment due to the lack of critical items necessary to complete particular supply projects. DESA proposed that starting with Phase II, the electricity authorities apply a project-based approach to the prioritization of the equipment lists. The mission concluded that "the lack of communication facilities, both internal and external, particularly at the start, and the lack of agreed overall processes and procedures for the identification, prioritization and specification of equipment posed a nearly impossible task for those in the field and in New York."

Mission report – December 1997

32. The Consultant noted that there had been no strategic analysis of the electricity sector before the project was initiated and no strategic plan developed to achieve the project objectives.

Mission report – February 1998

33. The mission report indicated that "It was clear from the Phase 2 and Phase 3 equipment lists that a new approach was directing the prioritization decisions of the North Iraq Electricity Authorities. Many requests were now for "turnkey" projects." The Consultant recommended that the Project Document and the Memorandum of Understanding establishing the programme be revised as soon as possible, to include these changes.

Mission report – June 1998

34. In its introduction, the report indicated that "unlike the previous missions, which dealt mainly with specific procurement and equipment issues, this mission was concerned with the overall approach to project execution policies, strategies and procedures." The Consultant's evaluation of the project performance followed: "The performance (of the project) from an engineering point of view, and taking into account the reality of the situation on the ground, must be considered to be within acceptable limits. The start up phase, which included the setting up of offices in all three northern Governorates has been completed. Local staff has been recruited and office facilities have been installed. The communication facilities (..) have been improved. Spare parts and materials have been ordered and deliveries to the north have been started with a scheduled increase in pace over the coming months. With the deliveries, the weaknesses of the

'shopping list' approach became painfully clear as some of the equipment delivered could not be installed without ancillary equipment that had not been given the same priority as the core items in the procurement lists." The Consultant also noted that the Project Document did not specify who was to carry out the study and assessment of the needs for equipment, spare parts, materials and services. Consequently, DESA had incorrectly assumed that the lists prepared by the local electricity authorities represented the most essential equipment for the rehabilitation.

35. In line with the evaluation mission reports, a note dated 2 July 1998 from the DESA Director of Coordination of Technical Cooperation Activities to the Assistant Secretary-General for Policy Coordination and Interagency Affairs mentioned the lack of timely analysis of the situation in North Iraq. The note went on to state that such an analysis would have identified the need for a continuous UNDP/DESA presence in the field from the inception of the programme and, in turn, this presence could have guaranteed a critical assessment of the government's original distribution list and its technical shortcomings. DESA's acceptance of this inadequate list, the Director of Coordination of Technical Cooperation Activities continued, had prevented the technical team from pushing for timely corrective measures.

36. We believe that there are lessons to be learned by DESA as to whether and under what conditions DESA should accept projects for execution. Generally accepted project management principles would indicate that DESA, prior to committing itself to the electricity project in North Iraq, should have performed a feasibility study including an assessment to determine the risks inherent in the project. Any decision then reached by DESA would have been made on the basis of an analysis of project goals, DESA's competence in the project area, and adequacy of time and resources necessary to execute the project as well as other organizational requirements. None of these factors were assessed before DESA agreed to execute the project. In our view this project could form the basis for a case study to determine future strategies and approaches in implementing other large-scale projects requiring the input of specialized expertise.

Recommendations 2 and 3

OIOS recommends that DESA management:

- (i) Use the North Iraq electricity project as a case study to determine future strategies and approaches for the implementation of similar projects (AH99/4/3/2); and
- (ii) Perform a technical assessment to determine the feasibility of project execution before accepting further execution contracts for large-scale projects requiring the input of specialized expertise and extensive resources (AH99/4/3/3).

37. *DESA stated in its response to the draft audit report that it is unlikely they would execute similar projects in the future. Also, while it agrees that a technical assessment on the feasibility of accepting such projects would be useful if it were approached to execute a similar programme in the future, they do not consider it necessary at this time.*

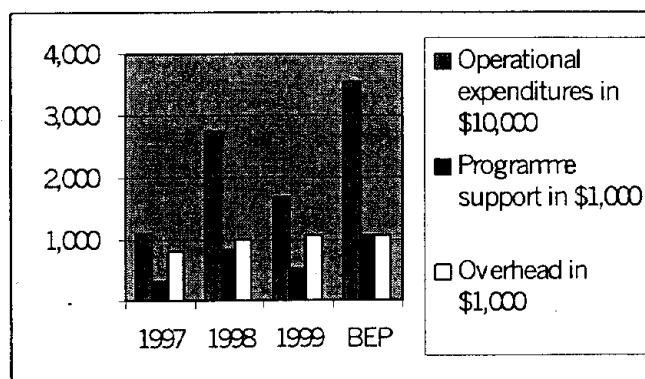
4. Insufficient managerial, administrative and technical resources

Programme support staff

38. All in all, DESA received \$1.6 million for overhead expenses, which did not cover the estimated \$2.5 million expended for salaries of the staff directly working for the project at Headquarters. In October 1996, DESA hired one full-time technical adviser for the electricity project which had a \$13.2 million budget at that time. By February 1998, DESA had formed a five-member team, one full-time and four part-time, to manage the project which had grown to \$42.5 million. The staff was responsible for covering field assessment, programme formulation, inter-agency coordination, negotiation with suppliers and preparation of programme reports. Two general service staff and one consultant responsible for administrative functions related to procurement assisted the team.

39. The United Nations Controller established the rate of programme support for OIP-funded projects at 3 per cent, which is less than the usual 10 to 13 per cent received by DESA on its other projects. This lower rate was justified based on the generally high level of expenditures for OIP-funded project. However, for this particular project, we found that the programme support cost of 3 per cent was insufficient to cover support costs incurred by DESA. Our estimates indicated that in order to cover the established project staffing at Headquarters, DESA would have needed to earn support costs based on annual expenditure of approximately \$35.5 million. Table 4 below shows that support costs would only match overhead at an annual expenditure level of \$35.5 million, but DESA had earned programme support on expenditure of only \$11 million in 1997, \$27.5 million in 1998, and \$16.7 million for Jan-Sep 1999.

Table 4: Comparison of income and expenditures on programme support earned by DESA



40. To compensate for low overhead, DESA could have resorted to the OIP 2.2 per cent account intended to cover projected related expenses of UN agencies, to augment its personnel needs to support the project in the field, but did not. However, upon taking over, the DEX chose this option. At the end of 1999, the DEX had 46 international field staff on board (12 managerial and administrative posts and 34 technical posts) while DESA had at its peak only 12 technical staff in the field. There was no evidence that DESA performed an analysis of revenue versus the

cost of its support to the electricity project in North Iraq, which further confirms the criticism that it lacked foresight and monitoring.

Recommendation 4

We recommend that DESA management ensure that for all DESA-executed projects, programme support funds earned are sufficient to cover project related overhead expenditures (AH99/4/3/4).

41. *DESA, in its response to the draft audit report, accepted this recommendation for all projects. It stated that each project, which contains a waiver reduction of programme support, is analyzed prior to forwarding to the Office of the Controller for approval.*

Delayed recruitment of technical staff in the field

42. Two international staff members due in the field in January 1997 were recruited only in March and July 1997, respectively, and did not renew their contracts when offered to do so. The third staff member, an electrical engineer, was hired only in September 1997. The Chief Technical Manager was hired in January 1998 and initially worked from Baghdad at the UNDP Resident Representative's request. It was only in the second half of 1998, with the addition of 10 new staff members, that the full team of DESA field project engineers was constituted.

43. We noted that in a meeting with a UNDP Programme Manager on 24 February 1998, DESA had said that there was a high turnover rate of international personnel because of the less than desirable working environment in Baghdad. DESA believed that UNDP Baghdad did not facilitate the recruitment of international staff and did not sufficiently take into account the different cultures and working styles of the staff performing their duties under very stressful conditions, the latter explaining the high staff turnover.

C. Interim arrangements between UN/DESA and UNDP/DEX

44. We found that although more than a year has passed since UNDP implemented Direct Execution modality (DEX), there were no formal arrangements between DESA and UNDP on how project components still executed by DESA would be coordinated with the UNDP/DEX. In response to an OIOS audit to DESA on this issue, DESA replied that UNDP had not consulted with them on any activities or entered into any detailed discussions in respect of the plan and execution of the DESA components of the project. We especially reviewed the level of coordination and cooperation between DESA and UNDP/DEX with regard to (a) repair of draft tubes at the Derbandikhan station, (b) generation feasibility study, (c) rehabilitation of the Dokan hydropower station and (d) Azmar and North Erbil substations turnkey components, which represented total budgeted expenditures of \$28 million.

1. Lack of coordination in the draft tubes repair at the Derbandikhan station resulted in a 66 per cent increase in contract price

45. In November 1998, DESA carried out a preliminary inspection of the draft tubes. The report was prepared by the project electrical engineer in North Iraq, who had been hired by DESA from a corporate contractor in July 1998. On 10 December 1998, a former employee of the project engineer submitted to the DEX Programme Director a repair proposal that the DESA Chief Technical Manager in North Iraq requested DESA Headquarters to process. DESA and the Procurement Division negotiated the contract, which was signed on 5 August 1999 for a not-to-exceed cost of \$578,000. However, the contractor subsequently requested 20 variations totaling \$384,000 more the original contract price - a 66 per cent increase - owing to site conditions found to be worse than identified in the contract's scope of work. According to DESA officials, the contract variations were also largely attributable to the fact that the UNDP/DEX managers did not inform them that while the proposal was being negotiated between DESA/Procurement Division and the contractor, the Iraqi electricity authorities were executing work on their own, thereby worsening site conditions.

2. Generation feasibility study may not be fully used

46. According to DESA, the objectives of the generation feasibility study (costing \$207,000) have been superseded by two new generation components put in place by UNDP/DEX. The objectives of the study were to identify the options for additional generation capacity in North Iraq, to recommend optimum investment of funds to increase the capacity and to present the results to UNDP for its consideration. However, before completion of the study in November 1999, UNDP started two new generation components in July 1999: the purchase of three 20 MW diesel power stations (Project Nos. IRQ99Z51, IRQ99Z57 and IRQ99Z58) for a total cost of \$54.2 million and the purchase of 224 small generators (project IRQ99Z54) for \$10.6 million.

47. DESA believed that these generators ran the risk of being "stranded" assets, meaning they would not be used. Further, critical issues of fuel sourcing, supply logistics and recipients' ability to pay had not been addressed, nor were the operation, control, and maintenance issues which could have reduced the effective capacity of the generators and caused major safety problems.

Recommendation 5

We recommend that DESA management assess the causes for and consequences of the lack of coordination with UNDP/DEX in the two cases reported above and communicate the results of this assessment without delay to UNDP in order to strengthen future coordination (AH99/4/3/5).

48. *DESA stated in its reply to the draft audit report that it had accepted and intended to carry out this recommendation.*

3. Lack of formalization of interim arrangements for the rehabilitation of the Dokan hydropower station and the Azmar and North Erbil substations' turnkey projects

49. We noted that DESA and UNDP/DEX had not yet signed the project document for the rehabilitation of the Dokan hydropower station (estimated at \$5.2 million), one of the goals listed in the project document signed in March 1997. The draft project document details implementation arrangements and the respective roles and responsibilities of DESA and DEX. Although the draft project document was transmitted by DESA to UNDP/DEX on 16 November 1999, it remained unsigned as of January 2000, the month during which the work was expected to begin.

50. Furthermore, the detailed procedures for the DESA and UNDP/DEX coordination and management of the Azmar and North Erbil substations' turnkey projects, estimated at \$21.6 million, were not yet finalized in January 2000.

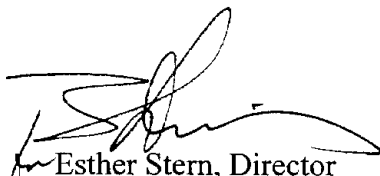
Recommendation 6

We recommend that DESA management ensure that implementation arrangements for the Dokan hydropower station and the Azmar and North Erbil substations' turnkey projects are formalized and agreed upon by UNDP/DEX prior to beginning their execution (AH99/4/3/6).

51. *In its reply to the draft audit report, DESA stated that this recommendation has already been carried out.*

V. ACKNOWLEDGEMENT

52. We wish to express our appreciation for the assistance and co-operation extended to the auditors by management and staff of DESA.


Esther Stern, Director
Audit and Management Consulting Division
Office of Internal Oversight Services